



Office of the Controller Reporting User Guide

Powered by Microsoft Power BI 

Last updated: August 19, 2024

MICHIGAN STATE

U N I V E R S I T Y

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1. OVERVIEW OF REPORTING SYSTEM

The Office of the Controller Reporting system through Microsoft Power BI is an online, interactive financial management reporting system designed for Fiscal Officers and Faculty/PI's to manage their accounts in accordance with the Manual of Business Procedures (MBP) – [Section 1: Fiscal Officer Responsibility: Accounts and Transactions](#).

Microsoft Power BI is a web-based system accessible through the [Spartan 365](#) suite of products available to all employees. Access to this particular reporting system requires submission of an electronic Access Request Memorandum (eARM) through IT Services. Please see Section 2 of this user guide for instructions on obtaining access.

This system combines data from finance (KFS), payroll (SAP), and payroll encumbrances (PETS) in a standard structure to help facilitate consistency in finance reporting across units but allows flexibility for the use of unit defined attributes (see Section 4 of this user guide for more information on available reporting attributes). Three report groups/packages have been created for each of the intended user groups – Fiscal Officers, Faculty/Principal Investigators (PI's), and MAU Budget Officers. Each report grouping has several reports/tabs that provides focused information to aid these groups to more efficiently and effectively managing their accounts.



The system is currently designed for reporting data that exists in the source systems noted above. Data is limited to the current fiscal year plus five (5) years of history.

Ad hoc calculations or projection modeling is not currently available. However, the raw data can be extracted easily into Excel for additional analysis through the [Fiscal Office Report – Transaction Extract](#) tab (see Section 6 for more information). This extract tool downloads data in a consistent format for users to complete ad hoc analysis or reporting, as needed.

Data is updated as part of the nightly job processing of all systems. Data reflects the prior day information and is typically updated by 10:00am of the next business day.

Communication and Support

A public Microsoft Teams site, [Office of the Controller Reporting](#), has been established to provide support for the user community. Messages regarding system issues, updates, scheduled maintenance, and other correspondence will be communicated through the Teams site via the *Posts* tab. In addition, relevant documents will be saved and shared in the *Files* tab for user reference. Users are encouraged to use the *Posts* tab to collaborate with other users regarding best practice strategies in using the system.

To join the Teams group, please click the above link and users will automatically be joined to the team.

For technical inquires and support, tickets should be submitted to the [IT Service Desk](#) at ithelp@msu.edu or (517) 432-6200/toll free (844) 678-6200.

2. REQUESTING AND OBTAINING ACCESS

Access requests are managed by IT Services and follow the same approval process as other financial data access.

Instructions:

1. Go to <https://go.msu.edu/access-requests>
2. Login using MSU Net ID credentials.
3. Once logged in, Expand Access Requests then look for 'Default Form' and click [Request]:

Sharepoint Add or remove access to Sharepoint sites.	Request
Transact Payments Add or remove access to Transact Payments without Assisted Payments. More Information	Request
Virtual Private Network (VPN) Add, change or delete access to MSU VPN. More Information	Request
Default Form Add or remove access to miscellaneous systems not listed above More Information	Request

4. Search for user(s) that require access.
5. A dropdown menu will appear below the search box. Use it to select the User then [Add User] to the list.

TECHNOLOGY AT MSU IT Help Services Knowledge Base

Select Users

User Search	MSU Username	Name	Organization Name	
<input type="text" value="bryant18"/>	<input type="text" value="bryant18@msu.edu"/>	<input type="text" value="Shea Bryant"/>	<input type="text" value="CONTROLLER 10076200"/>	<input type="button" value="Add User"/>
<input type="text" value="Shea Bryant (bryant18@msu.edu)"/>				
Please Select	Requester Name	Requester Organization Name		
<input type="text" value="Shea Bryant (bryant18@msu.edu)"/>	<input type="text" value="Marrion Kaiyoni"/>	<input type="text" value="CONTROLLER 10076200"/>		

6. Enter/copy the description and business need as noted below for the user to have access to the system.
7. Read and check the user data acknowledgement form check box then click [Check Form] and [Submit Access Request] when complete

Select Access

Please enter a detailed description of the access being requested.
Please do not enter user information in this field. If access is needed for additional individuals, please select the users above.

Description of Requested Access	
<input type="text" value="Please grant access to the ITS.SG.FinanceDataMart.Sensitive.User group."/>	
<input checked="" type="checkbox"/> The user read the Michigan State University Institutional Data Policy and printed and signed Institutional Data Policy Acknowledgement Form?	
Business Need / Comments	
<input type="text" value="Access being requested for users to perform Fiscal Officer/Account review duties utilizing the Office of the Controller Reporting system. Fiscal Officer/Account Review duties include managing and reviewing all transactions associated with assigned accounts."/>	
<input type="button" value="Check Form"/>	
<input type="button" value="Submit Access Request"/>	

Please grant access to the ITS.SG.FinanceDataMart.Sensitive.User group.

Access being requested for users to perform Fiscal Officer/Account review duties utilizing the Office of the Controller Reporting system. Fiscal Officer/Account Review duties include managing and reviewing all transactions associated with assigned accounts.

8. Please allow a few days for electronic routing for approvals. Requested users will be sent an automatic email upon access being granted by IT Services.
9. Once access has been granted, users need to navigate to www.powerbi.com and authenticate using their Net ID and password. For best performance, it is recommended that users use either Chrome or Edge browsers.

10. Select the Apps icon on the left margin.

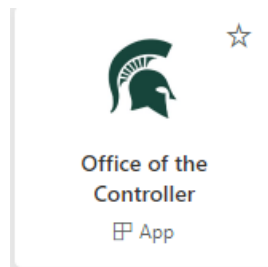


11. Select the Green button "Get apps".



12. Search for the "Office of the Controller Reporting" App.

13. Select the "Office of the Controller" App and select **Get it now**.



3. NAVIGATING THE REPORTING SYSTEM

The Office of the Controller Reporting system within Power BI is designed for interactive, online consumption. Although, there is some functionality for downloading data and printing report tabs to PDF (see Section 6 for more information), the printing functionality is limited.

The reporting system maintains a menu bar at the left margin that outlines the various reports/tabs available to users. Users click the pick-arrow (v) next to the report group title to expand the view to the various reports/tabs tailored for that particular user group. Users can then click the name of the report/tab to navigate to the report page. In addition, users can hide the menu bar by selecting the double arrow (<<) in the upper left side corner. This can provide additional screen space for actual report pages.

The [HOME] tabs provide basic descriptions and definitions of information on the other tabs/reports. In addition, the [HOME] tab provides the last “Data Refreshed” date so that users know when the system was last updated. Announcements may also be posted by the Controller’s Office to this page.

Please see Appendix B to this user guide or the [HOME] tab in the system for additional descriptions and definitions for the individual reports/tabs listed in each report group.

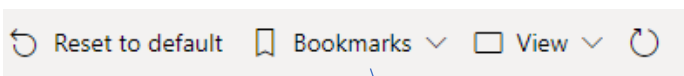
Within Power BI, there is a standard menu bar at the top of each screen. Below highlights some of the key functions:



Includes ability to print the page.

Includes function to export the screen to PDF document. See Section 6 for more.

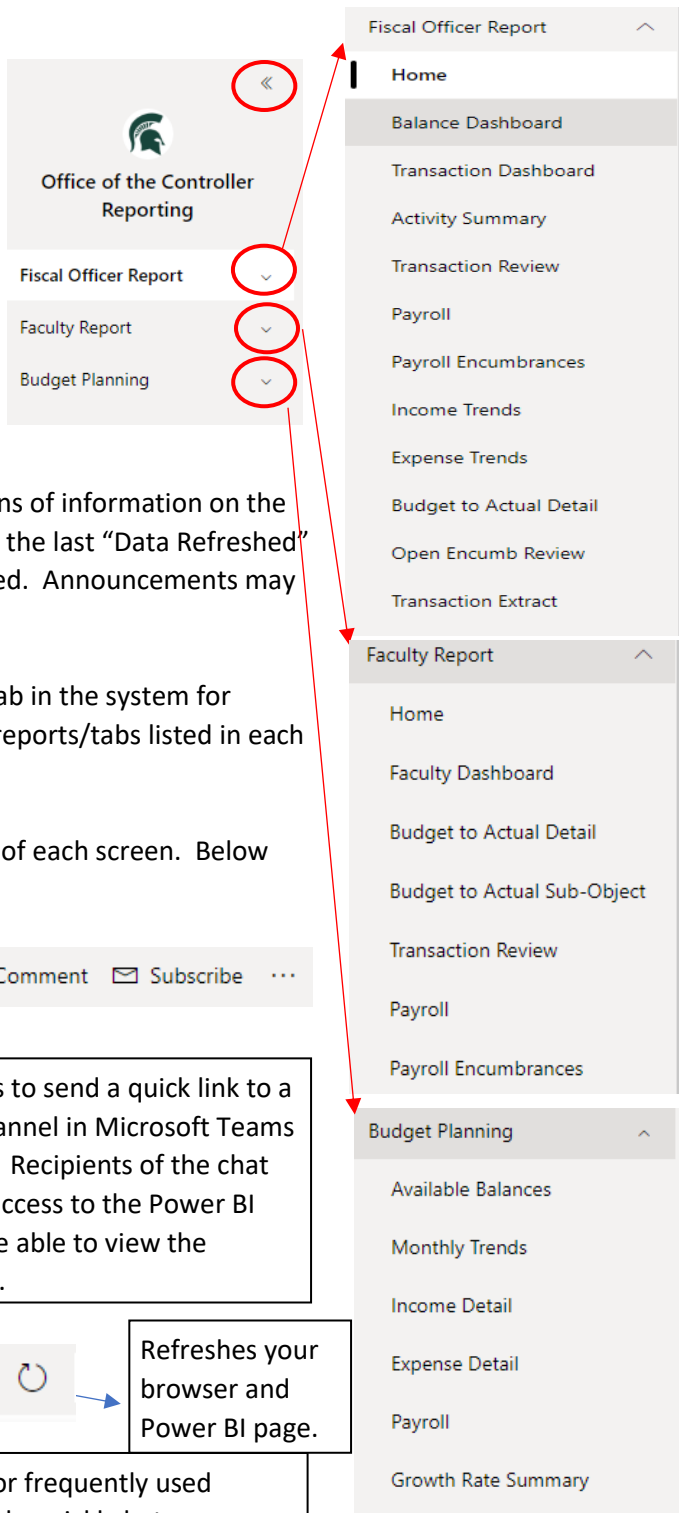
Allows users to send a quick link to a Team or Channel in Microsoft Teams for viewing. Recipients of the chat must have access to the Power BI system to be able to view the information.



Resets all filters to default setting across all tabs/reports.

Allows users to set bookmarks for frequently used filters/slicers and be able to toggle quickly between them. These are applicable to individual reports/tabs.

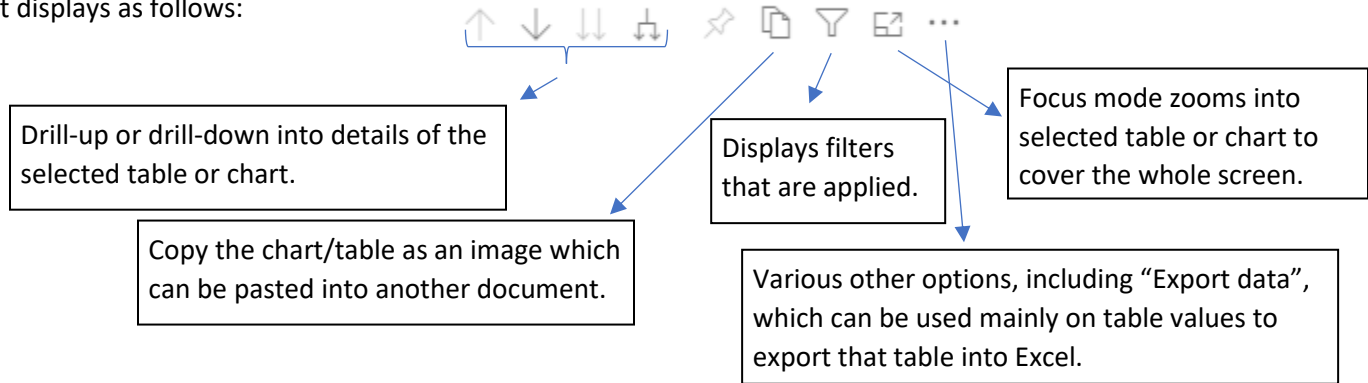
Refreshes your browser and Power BI page.



The below bar represents the filter/slicer bar for that individual tab or report. Clicking the [Show] button will display more filters that can be applied and the [Hide] button closes that window.



For many of the charts or data tables, there is a menu bar that appears when you select and hover over the item. It displays as follows:



[Focus Mode] outlined above is a very useful tool to zoom in on a particular chart or table in Power BI. Depending on the screen size that a user may be using, it may be difficult to see particular pieces of information. However, users can expand that particular chart or table by clicking on [Focus Mode], which then expands that item to the full screen for easier viewing.

(Full screen of [EXPENSE TRENDS] tab:

Expense Trends
Periods Selected: 04 - Oct

Total Expenses by Fiscal Year

Category	2019	2020	2021
EMPLOYEE PAY	107,368,343.70	108,502,804.50	106,257,847.20
EMPLOYEE BENEFITS	34,492,547.99	36,065,305.33	34,236,209.49
CONTRACTUAL SERVICES	72,766,542.90	64,618,507.26	86,482,752.20
SUPPLIES	27,250,776.38	28,325,411.88	15,440,168.52
FINANCIAL AID	9,807,848.04	10,781,007.24	6,915,981.66
DEPRECIATION AND INTEREST	-445,957.53	-1,480,119.62	-1,841,308.00
REPAIRS AND MAINTENANCE	7,089,138.05	9,516,423.08	10,111,673.58
TRAVEL	5,427,496.22	4,974,319.95	545,136.77
OTHER EXPENSES	97,209,099.25	67,230,180.92	84,623,938.55
CAPITAL EXPENDITURES	9,064,785.35	4,904,186.47	5,549,296.30
TRANSFERS-EXPENSES	95,015,844.31	96,855,878.17	188,967,468.02
Total	465,066,444.66	430,293,905.18	537,309,164.29

Expenses Trend by Category

EMPLOYEE PAY EMPLOYEE BENEFITS CONTRACTUAL SERVICES SUPPLIES FINANCIAL AID DEPRECIATION AND INTEREST REPAIRS AND MAINTENANCE TRAVEL OTHER EXPENSES CAPITAL EXPENDITURES TRANSFERS-EXPENSES

2019 2020 2021

Composition of Expenses by Fiscal Year

2019 2020 2021

Can be Zoomed in by using Focus Mode – see next page.

[[Focus Mode] of Expense Trend by Category line chart from [EXPENSE TRENDS] tab:

EXPENSES TREND BY CATEGORY

EMPLOYEE PAY EMPLOYEE BENEFITS CONTRACTUAL SERVICES SUPPLIES FINANCIAL AID DEPRECIATION AND INTEREST REPAIRS AND MAINTENANCE TRAVEL OTHER EXPENSES CAPITAL EXPENDITURES TRANSFERS-EXPENSES

2000M
1500M
1000M
500M
M

2019 2020 2021

4. USING FILTERS/SLICERS TO FACILITATE REVIEW AND REPORTING

The Office of the Controller Reporting system is designed to leverage the hierarchical structures available in KFS for users to quickly filter data to the specific information they need to analyze or report. This includes both the standard set of attributes in KFS, as well as the various unit defined attributes available in KFS (in orange below).

The following filters, also known as slicers, are available in Power BI to quickly access data:

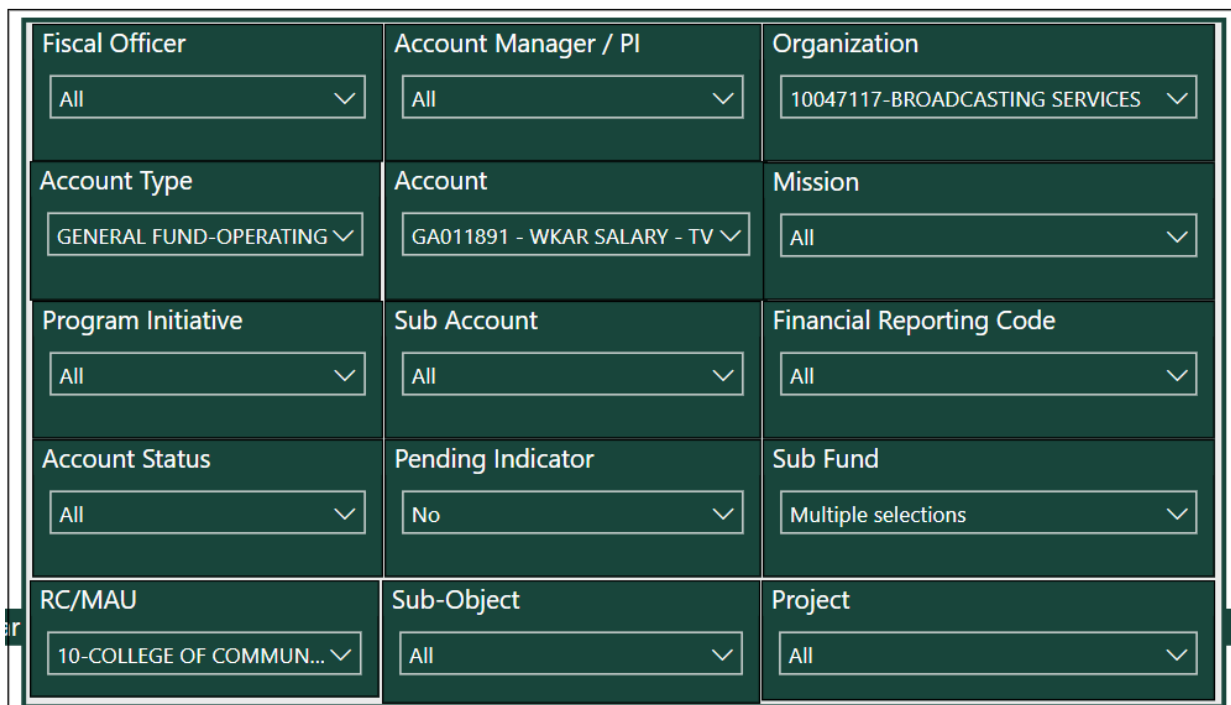
Administration/Oversight/Ownership	Type of Transaction	Timeframe
Responsibility Center (RC)/MAU	Accounting Category Code	Fiscal Year
Organization	Object Consolidation Code	Fiscal Period
Account Type	Object Level Code	Account Status
Sub Fund	Balance Type	
Fiscal Officer	Document Type	
Account Manager/PI	Sub-object Code	
Mission	Project Code	
Program Initiative	Pending Indicator	
Sub Account	Wage Type (Payroll only)	
Financial Reporting Sort Code		

Please reference Appendix A for more detail on the hierarchical structures used in KFS.

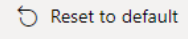
Filters can be accessed via the header bar on each report/tab. Typically, Fiscal Year and Fiscal Period are located directly on the header for quick access and reference. There are additional filters under the [Show]/[Hide] menu buttons in the center of the header bar.

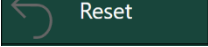


[Show]/[Hide] menu:

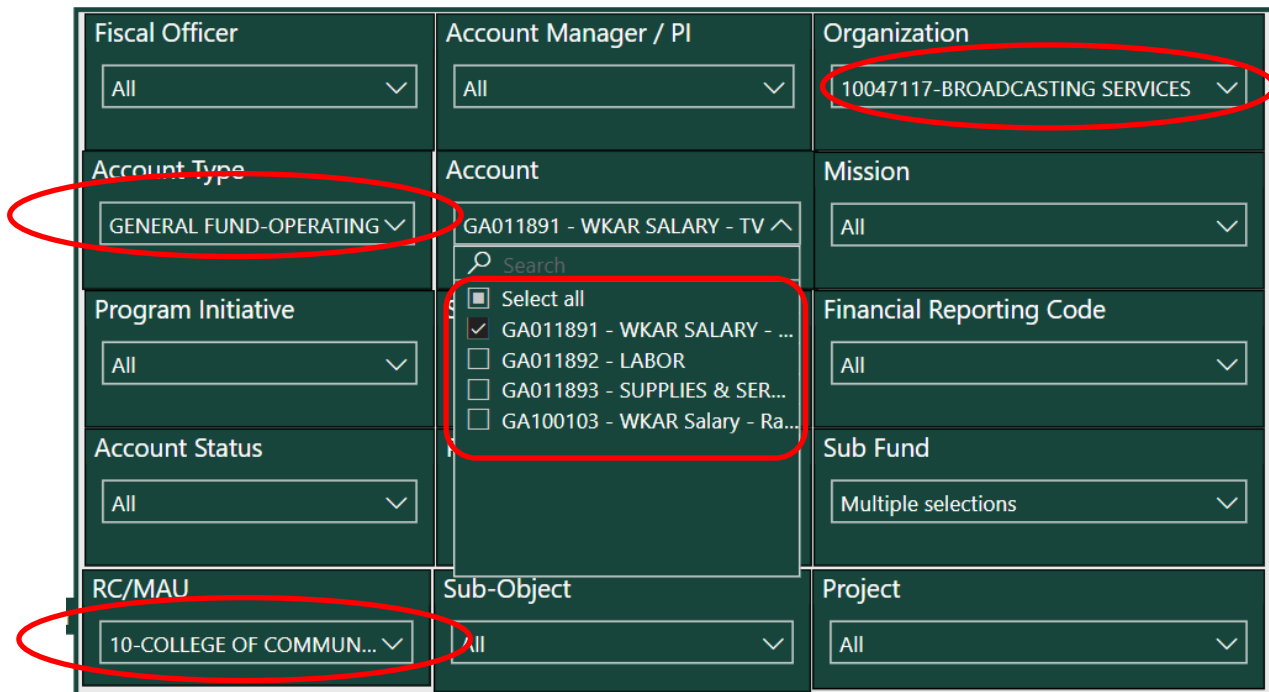


Filters are applied based on the selections made on each individual page and are automatically saved. Saved filters remain until they are changed or reset by the user. Even if the user logs out and logs back into the system on a subsequent day, the filters will remain the same.

As noted in Section 3, users can reset all filters across all tabs by clicking  icon.

Users can reset all filters on individual tabs/reports by clicking  icon within the [Show]/[Hide] menu on each individual tab.

When selecting slicers, other slicers will be filtered down to eligible selections based on the other slicers already selected. For example, based on the selections below, only the eligible accounts that meet all of these criteria appear in the “Account” selection slicer.



If results are not appearing as expected, users should review slicer selections that may be inadvertently filtering out desired options. Based on the hierarchy outlined in Appendix A, it is best to start high in the hierarchy and drill into detail attributes as you go.

All filters have a search function. For concatenated fields (Account, Fiscal Officer, Organization, etc.) users can search based on number/code or by name. Both items will be used in the search function.

In addition to filters/slicers within the [Show]/[Hide] menu and the header row, users can interact with data to further filter information during review, where applicable. For example, on the [TRANSACTION REVIEW] tab, users can select a specific dollar amount in the upper table and the lower table will automatically filter the detail transactions to just those specific transactions. In addition, users can select a specific period or a specific object consolidation, object level, or object code to further filter the data. Users can also hold the “CTRL” key and multi-select multiple values to filter the data.


Category	01 - Jul	02 - Aug	03 - Sep	04 - Oct	Total
INCOME					
GIFTS		75,927.98	120,599.47	98,202.04	412,768.93
OTHER REVENUES	3,203.43	23,159.00	9,174.00	19,489.00	55,025.43
Total	121,242.87	99,086.98	129,773.47	117,691.04	467,794.36
EXPENSES					
EMPLOYEE PAY	41,205.39	40,951.64	41,663.15	44,387.48	168,217.66
EMPLOYEE BENEFITS	16,164.45	16,114.12	15,033.28	17,095.49	64,407.34
CONTRACTUAL SERVICES	50,471.70	13,523.37	17,605.66	61,026.61	142,627.34
SUPPLIES	9,659.24	7,645.24	6,413.61	80,550.04	104,268.13
REPAIRS AND MAINTENANCE	758.55	2,366.89	1,860.48	598.53	8,584.45
TRAVEL	206.50	1,634.16	2.63		1,843.29
OTHER EXPENSES	65,600.56	8,612.06	7,334.19	14,242.38	95,789.29
CAPITAL EXPENDITURES				47,514.00	47,514.00

Approval	Account	Sub-Acct	Object Code - Name	Sub-Obj CD	Amount	Ledger Entry Description	Doc Nbr	URL	Doc Type	Fiscal Period	Post Date
FO	RN031143	DEV	4056-OTHER INCOME SOURCES		2,703.00	TV UW - Mi Lottery (DPTV)	24266276		AD	01	7/24/2020
Auto	RN031143	DEV	4056-OTHER INCOME SOURCES		500.43	ACH 7/23/20 - Central Michigan Univ	24331858		AD	01	7/24/2020
Total					3,203.43						

Users can click a specific value, time-period or category to filter detail below.

For best performance, it is recommended that users set filters for their ORGs, Accounts, FOs, Faculty, etc. before interacting with the tool as it will speed the processing time for returning results.

BOOKMARKS:

If users frequently toggle between different sets of filters/slicers to obtain different reporting for analysis or review, users can save personal [Bookmarks] which saves the filter settings for that particular view. [Bookmarks] can be saved by setting the filter/slicer criteria as desired then clicking  Bookmarks icon and selecting [Add personal bookmark]. [Bookmarks] only apply to the individual report/tab. Users can edit and delete [Bookmarks] by going to same icon and selecting the 3-dots to the right of the bookmark name listed. Microsoft limits users to 20 bookmarks per report package (e.g. 20 books for Fiscal Officer Report and 20 bookmarks for the Faculty Report).

FISCAL YEAR/PERIOD FILTERS:

The Office of the Controller Reports system leverages the fiscal year and fiscal period structure used in KFS. Therefore, the fiscal year runs from July 1 (Period 01) – June 30 (Period 12/13), annually. With the exception of certain reports within the *Faculty Reports* report group that allow for custom period selections, most information will be reported within the fiscal year/period selected.

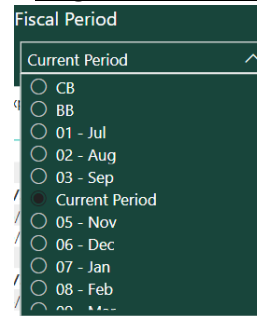
For efficiency in automatically rolling forward fiscal year/period filters from month to month without user intervention, the system is configured with a [Current Year] and [Current Period] selection. As these filters are set to [Current Year] and/or [Current Period], the filters will automatically roll forward. If users set the filters to other than these selections, users will need to manually adjust them to the desired selections upon login.

Certain accounts in KFS allow for inception-to-date reporting. These include grant and plant project accounts. In these instances, there is a [CB] period that is used to facilitate the inception to date reporting. The [CB] period represents the accumulated income or expense amounts on that object code for all fiscal years prior to the fiscal year selected. For example, if the [CB] period is selected for 2021 fiscal year, the [CB] period totals for each object code will represent the total of all activity from the inception of the account until June 30, 2020 (fiscal period 13 of fiscal year 2020) for that object code. All fiscal 2021 amounts will be properly categorized in the fiscal period 01-13 accordingly. Users should note, if doing year to year comparisons, the [CB] period should not be included as it will duplicate amounts reported.

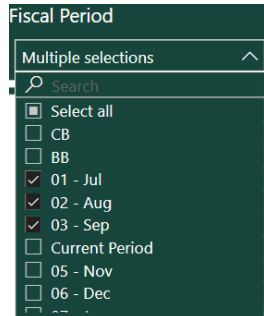
Additionally, a [BB] period exists for all asset, liability, and fund balance/net position object codes and represents the beginning balances rolled forward from one year to the next.

Certain fiscal period filters are setup as a single select slicer – meaning only 1 fiscal period can be selected at a time, versus, multi-select slicers where multiple periods can be selected. For single-select slicers, selecting a given fiscal period will return results equivalent to year-to-date information. For example, if fiscal period [03 – Sep] is selected on a single select slicer, this will return year-to-date information for fiscal periods 01-03. Alternatively, if the fiscal period slicer is established as a multi-select, then users will need to select all fiscal periods they want included in the results.

Single Select Slicer



Multi Select Slicer



5. DRILLING-IN AND DRILLING-OUT OF DATA


As previously mentioned, the Office of the Controller Reports through Power BI is intended to be an online, interactive system. One of the significant benefits is the efficient ability to drill-in and drill-out of data within the system.

Reports formatted to facilitate drilling-in and drilling-out of data are generally signified by the [+] or [-] sign.

40001013-INSTITUTE FOR QUANTITATIVE HEALTH	945,859.44	●	.00	419,850.26	526,009.18	●	
GENERAL FUND-COMMITTED	658,765.86	●	.00	110,802.39	547,963.47	●	
GE100578 - ZINN KURT STARTUP	658,765.86	●	.00	110,802.39	547,963.47	●	06/30/2022 ●
GRANTS AND CONTRACTS	287,093.58	●	.00	309,047.87	-21,954.29	◆	
RC108877 - NIA-NIH-R21AG054960-Zinn	244,116.51	●	.00	191,864.80	52,251.71	●	04/30/2021 ●
RC110316 - PRIS-750001-Zinn	28,387.09	▲	.00	.00	28,387.09	▲	06/30/2024 ●
RC110454 - UMT-PG20-61098-01-Zinn	1,201.56	▲	.00	.00	1,201.56	▲	07/31/2021 ●
RG101398 - GLAdiator-Zinn	13,388.42	▲	.00	117,183.07	-103,794.65	◆	10/31/2021 ●
Total	945,859.44	●	.00	419,850.26	526,009.18	●	

Drilled-down:

40001013-INSTITUTE FOR QUANTITATIVE HEALTH	945,859.44	●	.00	419,850.26	526,009.18	●	
GENERAL FUND-COMMITTED	658,765.86	●	.00	110,802.39	547,963.47	●	
GE100578 - ZINN KURT STARTUP	658,765.86	●	.00	110,802.39	547,963.47	●	06/30/2022 ●
U1014 - ZINN, KURT	649,575.00	●	.00	.00	649,575.00	●	06/30/2022 ●
U19086 - ZINN, KURT	9,190.86	▲	.00	110,802.39	-101,611.53	◆	06/30/2022 ●
GRANTS AND CONTRACTS	287,093.58	●	.00	309,047.87	-21,954.29	◆	
RC108877 - NIA-NIH-R21AG054960-Zinn	244,116.51	●	.00	191,864.80	52,251.71	●	04/30/2021 ●
U501 - MAIN ACCOUNT (YEAR 1: 8/15/18-4/30/19)	-4,354.33	◆	.00	191,864.80	-196,219.13	◆	04/30/2021 ●
U501A - UMontana (YEAR 1: 8/15/18 - 4/30/19)	-41,233.94	◆	.00	.00	-41,233.94	◆	04/30/2021 ●
U501B - MPI Research (YEAR 1: 8/15/18 - 4/30/19)	-46,863.50	◆	.00	.00	-46,863.50	◆	04/30/2021 ●
U501B - MPI Research (YEAR 1: 8/15/18 - 4/30/19)	301,349.00	●	.00	.00	301,349.00	●	04/30/2021 ●
U502 - MAIN ACCOUNT (YEAR 2: 5/1/19-4/30/20)	-32,310.93	◆	.00	.00	-32,310.93	◆	04/30/2021 ●
U502A - UMontana (YEAR 2: 5/01/19 - 4/30/20)	-53,244.71	◆	.00	.00	-53,244.71	◆	04/30/2021 ●
U502B - MPI Research (YEAR 2: 5/01/19 - 4/30/20)	-4,354.33	◆	.00	.00	-4,354.33	◆	04/30/2021 ●
U503 - MAIN ACCOUNT (YEAR 3: 5/1/20-4/30/21)	53,119.00	●	.00	.00	53,119.00	●	04/30/2021 ●
U503A - UMontana (YEAR 3: 5/01/20 - 4/30/21)	67,655.92	●	.00	.00	67,655.92	●	04/30/2021 ●
U503B - MPR Research (YEAR 3: 5/01/20 - 4/30/21)	-14,536.92	◆	.00	.00	-14,536.92	◆	04/30/2021 ●
RC110316 - PRIS-750001-Zinn	28,387.09	▲	.00	.00	28,387.09	▲	06/30/2024 ●
U501 - MAIN ACCOUNT (YEAR 1: 7/15/19-7/14/20)	.00	●	.00	.00	.00	●	06/30/2024 ●
U502 - MAIN ACCOUNT (YEAR 2: 7/15/20-7/14/21)	56,324.03	●	.00	.00	56,324.03	●	06/30/2024 ●
U503 - MAIN ACCOUNT (YEAR 3: 7/15/21-7/14/22)	-27,936.94	◆	.00	.00	-27,936.94	◆	06/30/2024 ●
U504 - MAIN ACCOUNT (YEAR 4: 7/15/22-7/14/23)	.00	●	.00	.00	.00	●	06/30/2024 ●
U505 - MAIN ACCOUNT (YEAR 5: 7/15/23-7/14/24)	.00	●	.00	.00	.00	●	06/30/2024 ●
RC110454 - UMT-PG20-61098-01-Zinn	1,201.56	▲	.00	.00	1,201.56	▲	07/31/2021 ●
U505 - MAIN ACCOUNT (YEAR 5: 8/1/19-7/31/20)	5,810.00	▲	.00	.00	5,810.00	▲	07/31/2021 ●
U505 - MAIN ACCOUNT (YEAR 5: 8/1/19-7/31/20)	-4,608.44	◆	.00	.00	-4,608.44	◆	07/31/2021 ●
RG101398 - GLAdiator-Zinn	13,388.42	▲	.00	117,183.07	-103,794.65	◆	10/31/2021 ●
U501 - MAIN ACCOUNT (Year 1: 3/1/2020-2/28/21)	77,544.00	●	.00	.00	77,544.00	●	10/31/2021 ●
U502 - MAIN ACCOUNT (Year 2: 3/1/21-10/31/21)	-64,155.58	◆	.00	117,183.07	-181,338.65	◆	10/31/2021 ●
U502 - MAIN ACCOUNT (Year 2: 3/1/21-10/31/21)	.00	▲	.00	.00	.00	▲	10/31/2021 ●
Total	945,859.44	●	.00	419,850.26	526,009.18	●	

As noted in Section 3 – users can also use the drill-in and drill-out using the menu icon that presents when the table or image is selected. 

Users may also right-click on the specific item they would like to drill-in or drill-out on and select the option from the menu as desired.

6. EXPORTING DATA/REPORTS FROM POWER BI

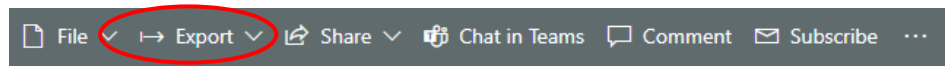
Power BI is designed as an interactive, online system. Although certain export functions are available, users are encouraged to access the system online to experience the full functionality for the most effective and efficient use of the system.

A [TRANSACTION EXTRACT] tab/report has been designed specifically for export purposes. All the various filters/slicers are available to filter the data to the exact population that is desired. The information can be exported to Excel, where additional ad hoc analysis or reporting can be done. The [TRANSACTION EXPORT] tab has the full list of attributes included for users to report at whatever level of detail they require.

Data displaying in a table view is most conducive for exporting from Power BI. Once the filters/slicers are set, users should navigate to the hover menu that appears when the table/image is selected. Select the 3-dots and select [Export data]. Users can select between an Excel file or a CSV file.



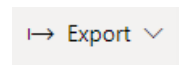
Note: within the menu bar at the top of Power BI (see right)



there is an “Export” option which includes an option to “Analyze in Excel”. This function will NOT export data from the table, but creates a blank pivot table with all available columns for users to create their own groupings or pivot table results.

Charts or other images are best extracted from Power BI using one of the following methods:

1. **Export page to a PDF** – this function is accessed through the main menu but is limited to only exporting the page as it appears on the screen. Multiple pages are not exported.



2. **Copy visual as an image** – This function is accessed through the hover menu when the chart/image is selected. Select the copy icon, which will copy the image as it appears on the screen to the clipboard, which users can then paste into an email, Excel, or Word document. When copied to a new document/email, it also creates a link back to Power BI, which the user can click to go into the system, if the recipient has access rights to the Power BI system.

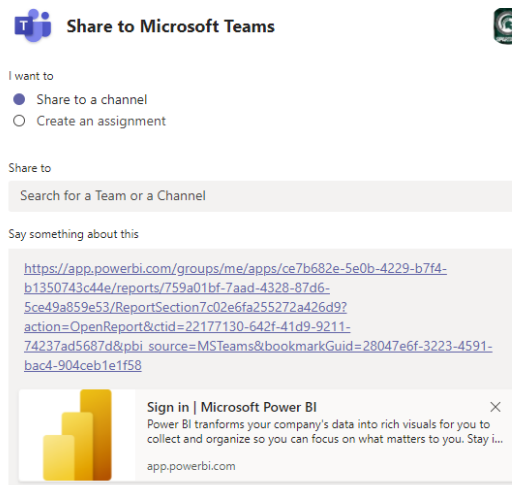
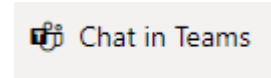


7. USING MICROSOFT TEAMS AND MOBILE FUNCTIONALITY

The Office of the Controller Reporting system can easily be disseminated through Microsoft Teams. To disseminate the information, members of the Team/Channel must have access rights to the Power BI system to be able to view the information.

Users can use Microsoft Teams in two ways:

1. **Chat in Teams** – this function allows users to set various filters as desired and send a URL link to a Team or channel within a team (can also be a private channel within a team) via the chat function in Teams. Recipients can then click the link which will take them directly into the Power BI system to the specific page the user sent with the specific filter settings the user set.



2. **Add Power BI tab directly to a Microsoft Teams channel** – this functionality allows users to create a tab directly within a Microsoft Teams channel of the full Office of the Controller Reporting tabs/reports. One major limitation of this method is that filters need to be reset by the user at each login – they are not saved and bookmark functionality is not available.

Organization	Available Balance Before Encumbrance	Encumbered Income	Encumbered Expense	Available Balance After Encumbrance	Status	Acct Expiration Date	Status
10076200- CONTROLLER	-7,089.30	.00	464.29	-7,553.59			
SELF-SUPPORTING ACTIVITIES	-7,089.30	.00	464.29	-7,553.59			
XT100023 - CO Accounting & Voucher Processing	-7,089.30	.00	464.29	-7,553.59			
ACCTG - Accounting	136,932.80	.00	464.29	136,468.51			
ACTGU - Accounting Telecom Line Usage	-18,044.65	.00	.00	-18,044.65			
MISC3 - Misc 3rd Pr Office Supplies Acqy/TU/VP	-1,704.12	.00	.00	-1,704.12			
TRAL - Travel	-3.00	.00	.00	-3.00			
VER - VERIFICATION	-104.97	.00	.00	-104.97			
Total	-124,165.36	.00	.00	-124,165.36			

The advantage of providing this directly in Microsoft Teams is if users are typically working in Teams, it's a quick reference to financial information. In addition, the functionality within Teams allows users to chat directly about the report right in Teams with the full group of Team members. To limit membership on who can see the reports, private channels can be created that limit the users with access.

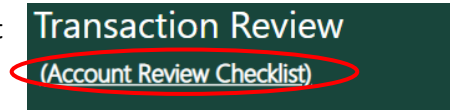
Mobile Functionality:

Under review.

8. DOCUMENT ACCOUNT REVIEW AS FISCAL OFFICER

The Office of the Controller Reporting system does not currently maintain notations for review or signoffs; however, the agility in being able to easily filter and interact with the transactions is intended to facilitate a more efficient account review process.

When using this system to conduct account review, fiscal officers must use the [Account Review Checklist](#) (or an equivalent document) to document that a thorough review has taken place in accordance with [MBP Section 1](#). For convenience, the Account Review Checklist is linked to the [TRANSACTION REVIEW] tab in Power BI.



Users should complete and save this checklist as proof of account review and be able to present the completed checklist upon request by the Office of the Controller or Internal Audit.

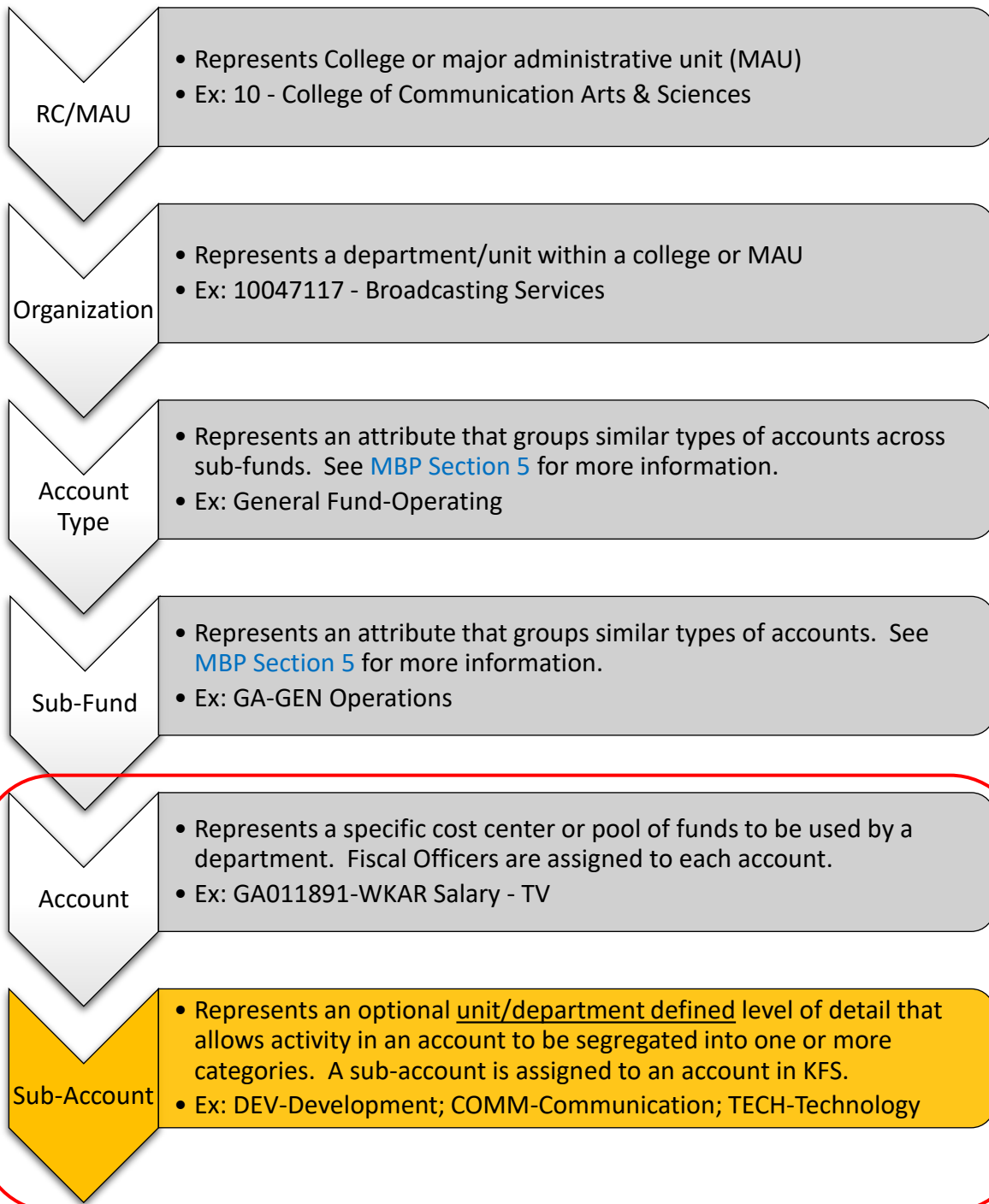
Payroll continues to be the one of the most critical expenditures requiring fiscal officer review on a timely basis. The [PAYROLL] and [PAYROLL ENCUMBRANCES] tabs provide focused information specific to payroll transactions, including providing trend information for easy review, so that fiscal officers can ensure trends are consistent with expectations. Results that vary from expectations should be investigated further using the various tools/systems available (e.g. Cognos, SAP, EDW, etc.).

The [TRANSACTION DASHBOARD] and [TRANSACTION REVIEW] tabs provide information related to what transactions have already been reviewed and approved by the fiscal officer via electronic workflow in KFS. Although these transactions should not be ignored, fiscal officers should focus efforts on those transactions that have not yet been reviewed and approved by them. These indicators allow for easing filtering, and where applicable, direct links into KFS for efficient review.

Transaction Dashboard			
(For Fiscal Year/Period: 2021 - 04 - Oct)			
Monthly Posted Transactions			
Doc Type	FO Approved	Delegate Approved	Auto Approved
AD-Advance Deposit			1
DVPX-Disbursement Voucher - E-Payables X Mode		1	
IB-Internal Billing		2	
PCDO-Procurement Card		1	
PREQ-Payment Request Document		10	
SB-Service Billing			1
SPB-Service Provider Billing		5	
Total		19	2

APPENDIX A: FINANCE SYSTEM (KFS) ATTRIBUTES OVERVIEW

The following items represent the standard hierarchy of attributes within KFS to represent ownership or fiduciary oversight of transactions in Power BI.

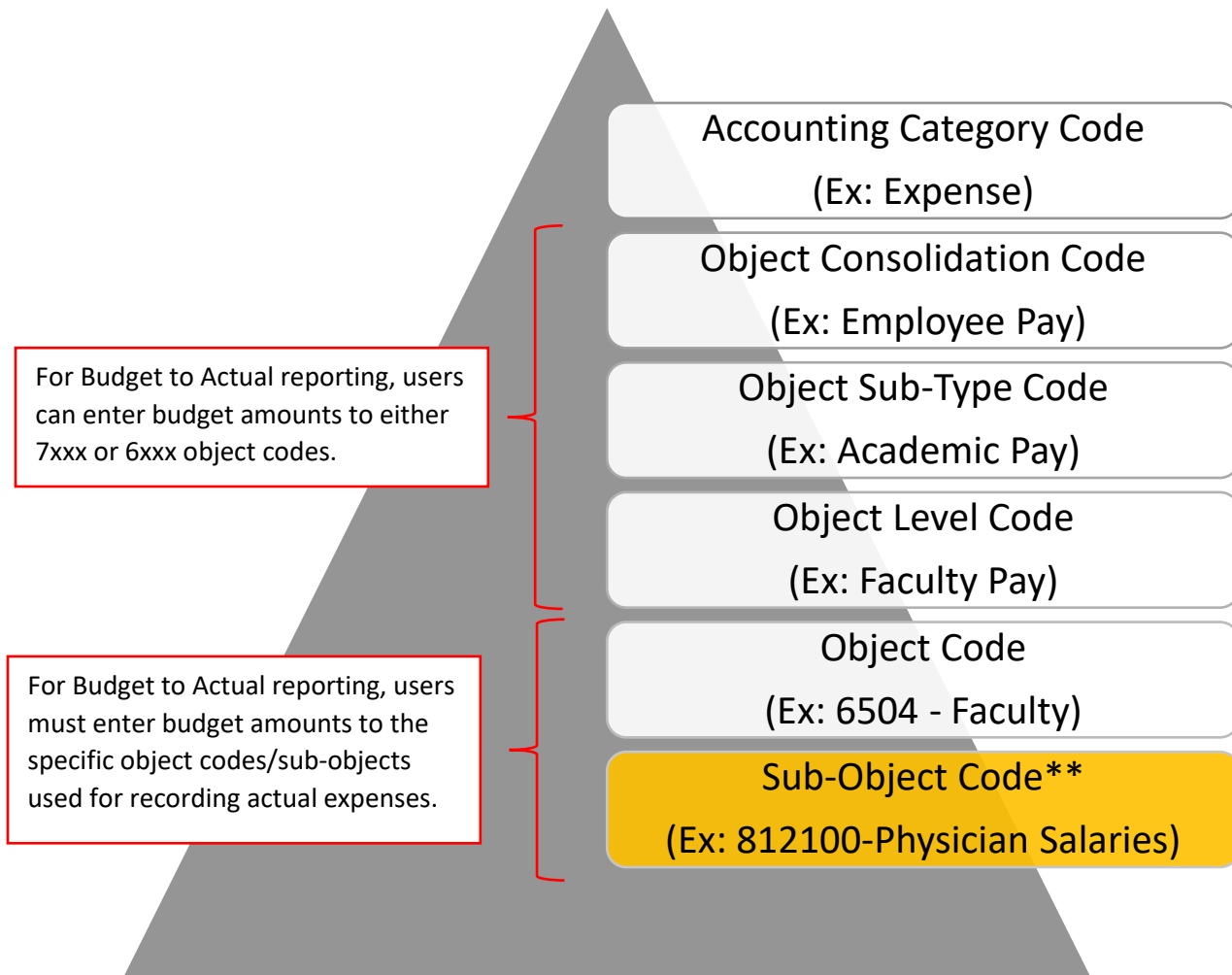


Account and sub-accounts contain several key attributes that can be used to help facilitate filtering and reporting within the Power BI system:

Account		Sub-Account
<i>Required</i>	<i>Unit defined</i>	<i>Unit defined</i>
Fiscal Officer	Mission Code	Financial Reporting Code
Account Manager/PI	Program/Initiative Code	

In addition to the chart of accounts hierarchy outlining the ownership or fiduciary administration of the funds, each individual transaction processed on accounts/sub-accounts can be reviewed and/or reported based on the object code hierarchy within KFS, which drills into the type of income or expense of a given transaction. Please see [Cognos BI Report – FIN071](#) for a full list of the object code hierarchy.

To facilitate expense budgeting, KFS deploys a 7xxx range of object codes. These object codes have been aligned consistently with the object code hierarchy outlined below and are included in the Cognos BI Report – FIN071. Note: actual expenses are not allowed to be charged to 7xxx range of object codes; therefore, if units desire budget to actual reporting at the object code, then units must budget to the 6xxx range of object codes. Budget to actual reporting at the object level or higher can be done at the 7xxx or 6xxx range.



Note: Sub-object codes are a unit/department defined attribute intended to segregate transactions into categories at a lower level of detail than the standard object codes. Sub-object codes are assigned to a specific object code **AND to a specific account. Departments should consider the administrative burden of maintaining sub-object codes across a wide array of accounts before deploying. Please discuss with the Office of the Controller - Accounting Office if you have questions.


In addition to the object code hierarchy, units can use the **Project Code** as a unit defined attribute that assigns a code at the individual transaction level that can be used to do reporting across accounts and across object codes.

APPENDIX B: OFFICE OF THE CONTROLLER REPORTING SYSTEM REPORT DESCRIPTIONS

FISCAL OFFICER REPORT:

The [HOME] tab provides basic descriptions and definitions of information on the other tabs/reports. In addition, the [HOME] tab provides the last “Data Refreshed” date so that users know when the system was last updated. Announcements may also be posted by the Controller’s Office to this page.

The [BALANCE DASHBOARD] tab provides summary Available Balances Before Encumbrances, Encumbered Income, Encumbered Expense, and Available Balances After Encumbrances. This is intended to provide users a quick reference on what the Available Balance is for each account and sub-account. Data is organized by the following hierarchy elements: Organization, Account Type, Account, and Sub-Account. The computation for Available Balance may vary depending on the sub-fund of the account (i.e. factoring in budget amounts or not).

The [TRANSACTION DASHBOARD] tab provides summary information related to posted and pending transactions. Transactions have been categorized as approved by FO, by delegate, or auto approved. This will help FO’s more clearly identify those transactions that need review. The pending transactions section allows FO’s to manage their action list and identify pending transactions that may need to be processed by themselves or others. The  icon represents a URL link directly to the document within the finance system (KFS). See Section 8 for more information about account review.

The [ACTIVITY SUMMARY] tab provides summary income and expense activity for budgeted and actual expenses. Columns displayed are customized by users using the [Select columns] filter at the top of the screen. User can press and hold the “CTRL” key on their keyboard and click each column they want displayed for multi-select functionality. Data is organized by the following hierarchy elements: Organization, Account Type, Account, Sub-Account and object code. Where applicable, data is reported inception to date for all grant and plant project accounts.


The [TRANSACTION REVIEW] tab provides summary amounts by fiscal period at the top of the screen with detail transaction line items at the bottom of the screen. The tab is interactive in that users can select a specific period, a specific object consolidation/level/code or a combination and the detail transactions will automatically filter to what is selected. A link to the [Account Review Checklist](#) is provided for documentation of account review. See Section 8 for more information about account review.

The [PAYROLL] tab provides payroll trend information by employee type, spend meters compared to payroll budget and payroll encumbrances, and the composition of payroll expense by employee type. In addition, detail labor distribution information is provided by pay period. This is a critical component of account review to limit payroll payment errors.

The [PAYROLL ENCUMBRANCES] tab provides current payroll information compared to current payroll budget and current payroll encumbrance information. In addition, employee information detail is provided to allow for a quick review of total anticipated payroll expense for a given employee.

The [INCOME TRENDS] AND [EXPENSE TRENDS] tabs provide trend information based on timeframes selected by the user. Timeframes must fall within a specific fiscal year, but users have the ability to select whatever fiscal periods that are desirable for comparison purposes. This tab is intended for information and analytical purposes to review accounts activity at a high level and identify variances that fall outside expectations.

The [BUDGET TO ACTUAL DETAIL] tab provides budget to actual expense detail information, along with variance amounts and KPI indicators for percentage of budget spent. Filter selections are also displayed for easy reference by the faculty user.

The [OPEN ENCUMB REVIEW] tab provides information to users related to open encumbrances within the finance system. The information is intended to help them manage open encumbrance. Direct URL links [] are provided for quick access to KFS for document review.

The [TRANSACTION EXTRACT] tab provides quick access to detailed transaction activity that can be downloaded and used for ad hoc analysis and/or report by users in excel. See Section 6 for additional information about exporting data.

FACULTY REPORT:

The [HOME] tab provides basic descriptions and definitions of information on the other tabs/reports. In addition, the [HOME] tab provides the last “Data Refreshed” date so that users know when the system was last updated. Announcements may also be posted by the Controller’s Office to this page.

The [FACULTY DASHBOARD] tab provides summary information for the Faculty/PI regarding account balances and percent spent compared to budget information. In addition, a budget to actual comparison chart is provided for a high-level overview of the activity. Depending on the number of accounts listed this tab is formatted in a way to be most conducive with exporting to a PDF page.

The [BUDGET TO ACTUAL DETAIL] tab provides budget to actual expense detail information, along with variance amounts and KPI indicators for percentage of budget spent. Filter selections are also displayed for easy reference by the faculty user.

The [BUDGET TO ACTUAL SUB-OBJECT] tab provides budget to actual expense detail information consistent with the [BUDGET TO ACTUAL DETAIL] tab, with the exception of grouping the amounts by Sub-Object code. This tab allows units to analyze and report amounts based on customized categories by utilizing the Sub-Object code field. Customized reporting categories may be necessary to meet certain grant requirements; however, users are encouraged to utilize the KFS object code hierarchy as much as possible to accomplish reporting needs for greater efficiency and consistency across accounts.

The [TRANSACTION REVIEW] tab provides summary amounts by fiscal period at the top of the screen with detail transaction line items at the bottom of the screen. The tab is interactive in that users can select a specific period, a specific object consolidation/level/code or a combination and the detail transactions will automatically filter to what is selected. This tab is modified from the similar tab included in the *Fiscal Office Report* in that users can custom select the fiscal period range they want to view, including across fiscal years. This functionality allows for easier review of inception-to-date accounts for the entire grant/project period.

The [PAYROLL] tab provides payroll trend information by employee type, spend meters compared to payroll budget and payroll encumbrances, and the composition of payroll expense by employee type. In addition, detail labor distribution information is provided by pay period. This is a critical component of account review to limit payroll payment errors.

The [PAYROLL ENCUMBRANCES] tab provides current payroll information compared to current payroll budget and current payroll encumbrance information. In addition, employee information detail is provided to allow for a quick review of total anticipated payroll expense for a given employee.

BUDGET PLANNING:

Information presented here focusses exclusively on the operating funds included in the all-funds budget template, which are General Fund, Auxiliary Fund, Designated Fund, and Expendable Restricted Fund income and expense transaction details.

The [AVAILABLE BALANCES] tab provides information similar to the Unrestricted Fund Balances reported in Planning Analytics, which is the details of balances available to units. The Fiscal period filter accumulates balances up to the selection you made then provides a cross section view for that period accumulate across the years displayed. The table on the bottom of this page compliments the table at the top by providing further details for your selections.

The [MONTHLY TRENDS] tab provides a month-by-month view of revenues and expenses which follows the same hierarchy displayed in Kualu Financial System. The bottom half gives you the burn rate accumulative month by month compared to fiscal year end totals.

The [INCOME DETAIL] tab provides details specific to Income, it is similar to the [MONTHLY TRENDS] except that each column here has accumulated all periods and displayed them under one year. To see a specific period, you will need to use the fiscal period filter. Unlike the [AVAILABLE BALANCES] Fiscal Period filter, if you want to see accumulated balances by fiscal period, you will have to select all the periods you want to see on this tab. On the top right is a static view specifically for general fund information showing General Fund allocations and carryforwards. The bottom half is a complimentary table that shows details of your selection. If you want to do extra analysis on your local drive, download the complimentary table because it contains additional attributes that users can group/total by.

The [EXPENSE DETAIL] tab is very similar to the [INCOME DETAIL] tab except that this tab shows details for Expenses and there is no General Fund allocation or carry forwards here.

The [PAYROLL] tab provides payroll roster grouped by Operating Funds and Payroll and Benefits Object Codes. Drilling in gives you details down to individuals charged towards each Operating Funds

The [GROWTH RATE SUMMARY] tab has four tables; the first table shows Income and Expense details grouped by Funds. As the name suggests, the Year over Year growth rate shows growth rate over one year, the 3-year Compound Average Growth Rate (CAGR) shows the compound growth rate over a period of 3 years. Similarly, the 5-year CAGR shows average growth over 5 years. The “ i ” icons next to these tables provide formulars on how the calculations were done.